Panasonic®

just slightly ahead of our time®

Operating Instructions

CT-1388YD
CT-1389VYD
CT-2088YD

CT-2089VYD
CT-2788YD
CT-2789VYD

IMPORTANT INFORMATION

Notice from the FCC:

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Important:

Changes or modification not expressly approved by Matsushita Television Company, Inc. could void the user's authority to operate the equipment.

FEATURE CHART

MODELS	CT-1388YD	CT-1389VYD	CT-2088YD	CT-2089VYD	CT-2788YD	CT-2789VYD
FEATURES						
Bilingual menu E/S	❑	❑	❑	❑	❑	❑
181 Channels		❑		❑		❑
Closed Captioning	❑	❑	❑	❑	❑	❑
V-Chip Program Lock		❑		❑		❑
Remote (TV only)		❑		❑		❑
ControlPanelLock	❑	❑	❑	❑	❑	❑
Auto Power On Menu	❑	❑	❑	❑	❑	❑
Stereo						❑
Bass/Treble/Balance					❑	❑
SAP						❑
AI sound						❑
Surround Sound					❑	❑
Variable Audio Out						❑
Fixed Audio Out						❑
Earphone jack	❑	❑				

CONGRATULATIONS

Your new TV Monitor/Receiver features a solid state chassis that is designed to give you many years of enjoyment. It was thoroughly tested and tuned at the factory for best performance.

Customer Record

The model and serial number of this product may be found on the back of the unit. You should note the model and serial number in the space provided and retain as a permanent record of your purchase. This will aid in identification in the event of theft or loss.

Product registration is available for U.S. customers at:

www.prodreg.com/panasonic

Model Number	
Serial Number	

Care and Cleaning
Screen (Turn TV Off)
- Use a mild soap solution or window cleaner with a soft clean cloth. DO NOT USE ABRASIVE CLEANERS.
- Avoid excessive moisture and wipe dry.

Cabinet and Remote Control
- Use a soft cloth dampened with water or a mild detergent solution. Do not use benzene, thinner, or other petroleum based cleaners.
- Wipe dry with a soft clean cloth. Avoid excessive moisture.

Specifications

Power Source	
CT-1388YD, CT-1389VYD (0.9A) **CT-2088YD, CT-2089VYD (1.3A)** **CT-2788YD, CT-2789VYD (1.8A)**	120V AC, 60Hz
Channel Capability - 181 (CT-1389VYD, CT-2089VYD and CT-2789VYD only)	VHF-12; UHF-56; Cable-113
1 Video Input Jack (CT-2788YD and CT-2789VYD) **3 Video Input Jacks** (CT-1388YD,CT-1389VYD. CT-2088YD and CT-2089VYD)	$1V_{p-p}$, 75 Ohm, BNC Jack Type
1 (set) Audio Input Jack (CT-2788YD and CT-2789VYD) **3 Audio Input Jacks** (CT-1388YD, CT-1389VYD, CT-2088YD and CT-2089VYD)	500mV RMS 47K Ohm Phono Jack Type
1 Video Output Jack (CT-2788YD and CT-2789VYD) **3 Video Output Jacks** (CT-1388YD, CT-1389VYD, CT-2088YD and CT-2089VYD)	BNC Jack Type
1 (set) Audio Output Jack (CT-2788YD and CT-2789VYD) **3 Audio Output Jacks** (CT-1388YD, CT-1389VYD, CT-2088YD and CT-2089VYD)	Phono Jack Type
Video Monitor Output Jack	BNC Jack Type
Audio Monitor Output Jack	Phono Jack Type
S-Video In/Out Jacks	Y-C Connector
Earphone Jack (CT-1388YD and CT-1389VYD)	1/8" mini plug Type

Specifications are subject to change without notice or obligation.

INSTALLATION

Television Location

This unit is intended to be used with an entertainment center. Consult your dealer for available options.
- ❒ Avoid excessive sunlight or bright lights, including reflections.
- ❒ Keep away from excessive heat or moisture. Inadequate ventilation may cause internal component failure.
- ❒ Fluorescent lighting may reduce Remote Control transmitting range.
- ❒ Avoid magnetic equipment, including motors, fans, or external speakers.
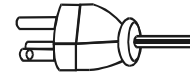
Optional Cable Connections

Shielded audio and video cables should be used between components. For best results:
- Use 75-ohm coaxial shielded cables.
- Use appropriate input and output connectors that match your component connectors.
- Avoid long cables to minimize interference.

AC Power Supply Cord

CAUTION: MAKE SURE PLUG IS INSERTED FULLY INTO RECEPTACLE.

This product is equipped with a three-wire ground type plug - a plug with two blades and a third pin which is round. This plug will only fit into a grounding type outlet. This is a safety feature. If you are unable to insert the plug into the outlet, contact your electrician to replace your obsolete outlet. **DO NOT DEFEAT THE SAFETY PURPOSE OF THE GROUNDING TYPE PLUG.**

3 Wire Ground plug

Batteries
- Replace batteries in pairs.
- Do not mix battery types (zinc carbon with alkaline).
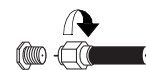- Do not recharge, short-circuit, disassemble, heat, or burn used batteries.

Cable / Antenna

For proper reception, either a cable or antenna connection are required.

Cable Connection
Connect the cable supplied by your local cable company.

Incoming Cable from Cable Company

75 Ohms VHF/UHF on back of TV

Note: *A cable converter box may be required for proper reception. Check with your local Cable company for compatibility requirements.*

Cable / Antenna (Cont.)
Antenna Connection

- For proper reception of VHF/UHF channels, an external antenna is required. For best reception an outdoor antenna is recommended.
- Antenna Mode must be set to TV.

Incoming Cable from Home Antenna
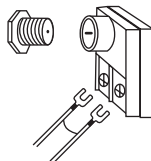
Note: *Cable mode is preset at the factory. Antenna users must change to antenna mode in Set Up menu.*

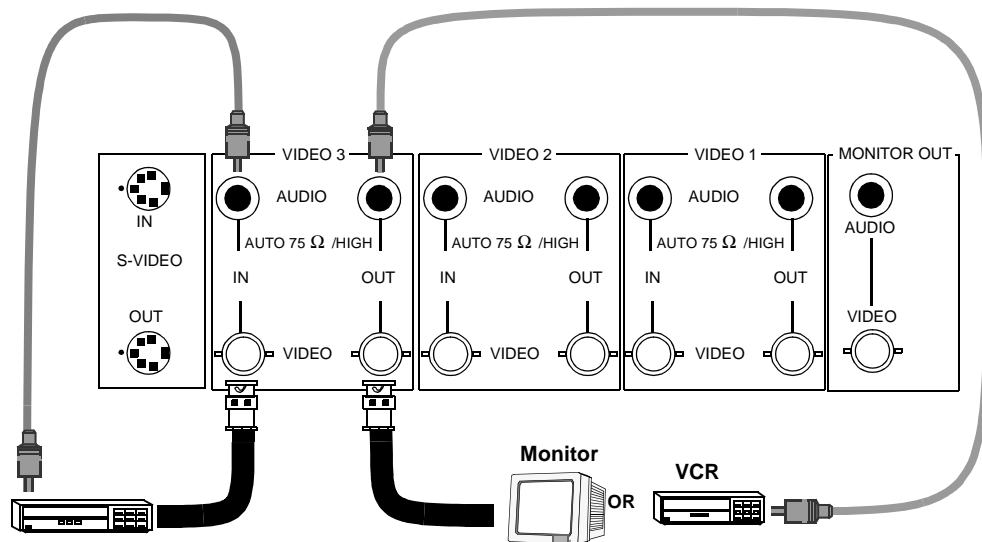## OPTIONAL EQUIPMENT CONNECTION

Video/Audio In & Out Connection

CT-1388YD, CT-1389VYD, CT-2088YD and CT-2089VYD
The IN and OUT terminals located on the back of Monitor directly pass the input signals through the out terminals, so you may monitor or record the external Video/Audio information.

Operation
1. Connect an external Video/Audio source to VIDEO 1, VIDEO 2 or VIDEO 3 IN terminals, as shown.
2. Select the same video mode that the equipment is connected to, by pressing the TV/VIDEO or VIDEO SELECT button.
3. Connect a Monitor or VCR to the Video/Audio out terminals as shown. The out terminals will provide the same signals as the input terminals for monitoring or recording.

*Note:* *Video/Audio 1, 2 and 3 input and output terminals will operate whether the Monitor is ON or OFF.*

External Audio/Video Equipment

S-Video In & Out Connection
CT-1388YD, CT-1389VYD, CT-2088YD and CT-2089VYD

The S-Video IN and OUT terminals located on the back of Monitor directly pass the input signals through the out terminals, so you may monitor or record the external video/audio information.

Notes:
- *Only Video 3 audio in and out may be used with S-Video operation.*
- *Connection of optional S-Video jack will override the standard Video Input 3 BNC connector.*
- *S-Video IN and OUT terminals will operate whether the Monitor is ON or OFF.*

Operation
1. Connect S -VIDEO input to a external audio/video source as shown.
2. Connect video 3 audio in jack as shown.
3. Press the TV/VIDEO or VIDEO SELECT button to select video 3 mode.
4. Connect S -VIDEO out to a monitor or VCR as shown.
5. Connect video 3 audio out jack as shown.
6. The output terminals will provide the same signals as the input terminals for monitoring or recording.

External Audio/Video Equipment
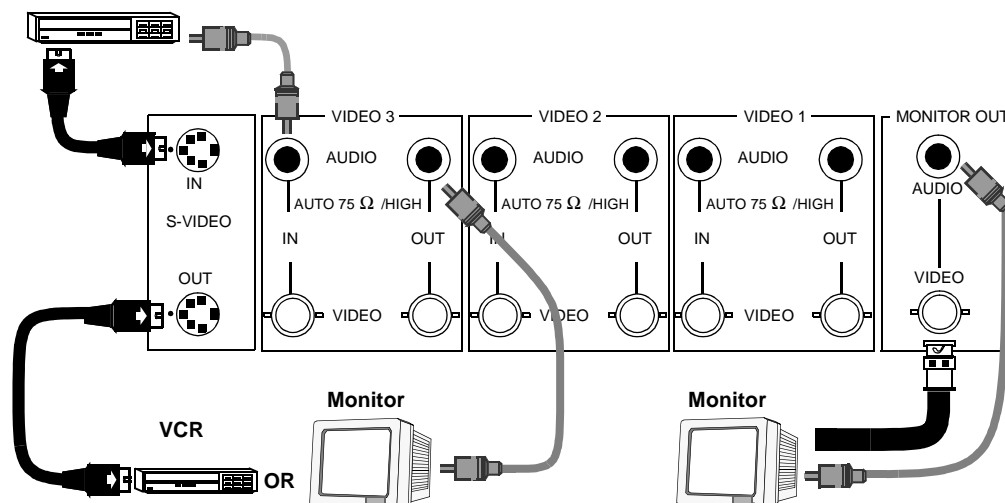
Monitor Out Connection
The Monitor out terminals will output video and audio signals being displayed onsrceen. Connect the Monitor out terminals as shown above for models CT-1388VD, CT-1389VYD, CT-2088VD, and CT-2089VYD. Connect the Monitor Out terminals as shown below for models CT-2788YD and CT-2789VYD.

Note: *The Monitor Out terminals only operate when the monitor is on.*
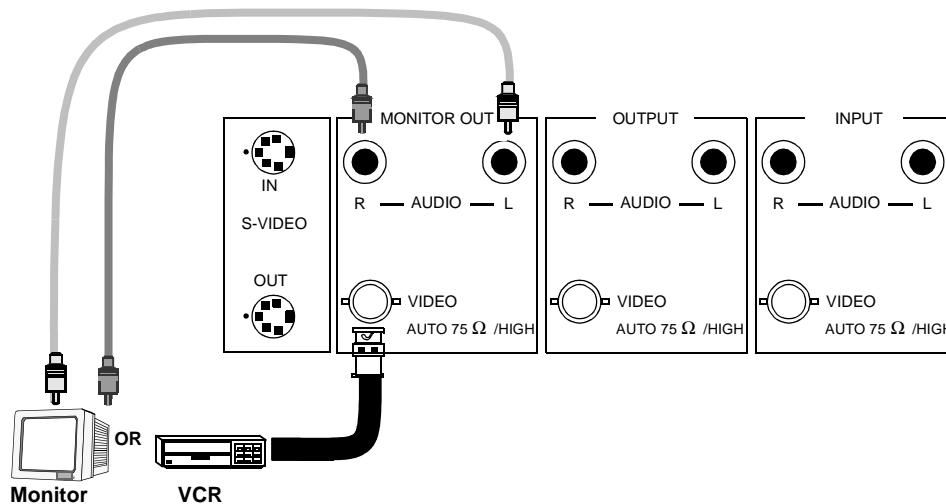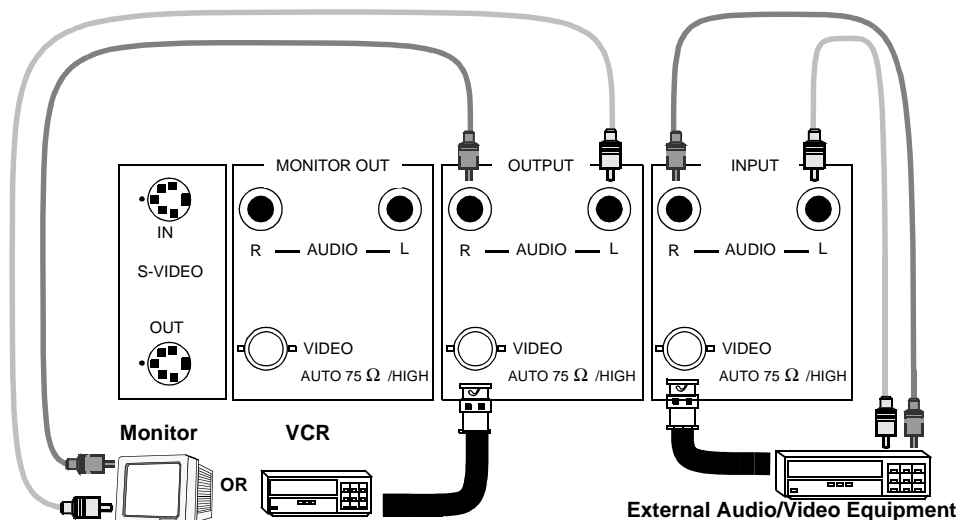
Video/Audio In & Out Connection
**CT-2788YD and CT-2789VYD**
The IN and OUT terminals located on the back of Monitor directly pass the input signals through the out terminals, so you may monitor or record the external video/audio information.

Operation

1. Connect an external video/audio source to the Monitor video/audio input terminals as shown.
2. Select video mode by pressing the TV/VIDEO button.
3. Connect an external video/audio source (Monitor or VCR) to the video/audio output terminals as shown.
4. The output terminals will provide the same signals as the input terminals for monitoring or recording.

Note: *Video/Audio IN and OUT terminals will operate whether the Monitor is ON or OFF.*

S-Video In & Out Connection
CT-2788YD and CT-2789VYD
The IN and OUT terminals located on the back of Monitor directly pass the input signals through the out terminals, so you may monitor or record the external video/audio information.

Note: *Video/Audio IN and OUT terminals will operate whether the Monitor is ON or OFF.*
   - *S-Video connection is optional and overrides the standard Video connection when connected.*

Operation

1. Connect an external video/audio source to the Monitor Input terminals as shown.
2. Select video mode by pressing the TV/VIDEO button.
3. Connect audio output to external video/audio source (Monitor or VCR) terminals as shown.
4. The output terminals will provide the same signals as the input terminals for monitoring or recording.
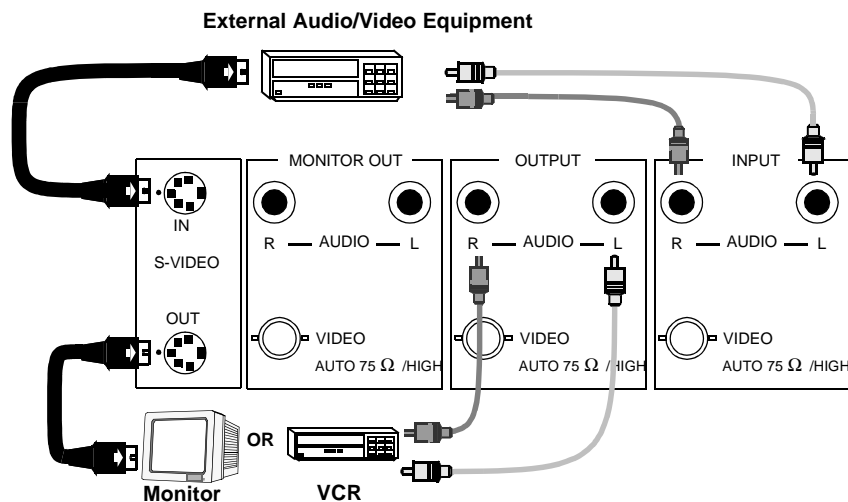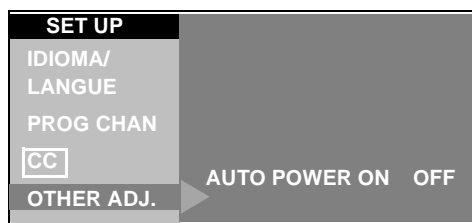
AUTO POWER ON FEATURE

This Monitor has an Auto Power On feature which automatically turns the unit ON when AC power is supplied. This feature initiates the Monitor to turn On automatically when using it with other equipment to a main power switch. (Such as: AC power strip or when plugged directly into the back of another video equipment.) Once the initial power has been supplied and the Monitor turns ON, the POWER switch located on the front of the Monitor may be used to turn the Monitor OFF and ON as desired.

Monitor AC Plug

AC Power Strip
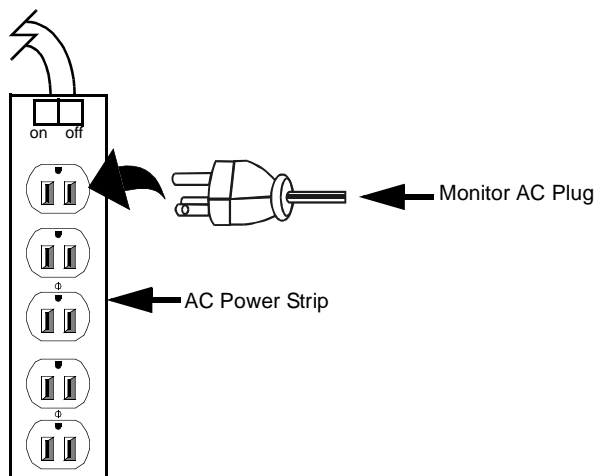
Procedure

1. Press Action button.
2. Press CH ▲/▼ and VOL ◄/► buttons to highlight the Set-up Icon.
3. Press Action button to display Set-up menu.

SET UP	
IDIOMA/ LANGUE	
PROG CHAN	
CC	AUTO POWER ON OFF
OTHER ADJ. ►	

4. Press ▼ button to highlight OTHER ADJ.
5. Press ► button to highlight AUTO POWER ON.
6. Press VOL ► button to select SET or OFF.

Note: *When this feature is activated (on), the Timer features will be disabled.*

CONTROL PANEL LOCK FEATURE

Procedure

With the Monitor turned on, press the ACTION and VOL RIGHT (►)buttons on the control panel simultaneously, then **quickly** press the ACTION and UP (▲) buttons simultaneously. This will activate the Keyboard Lock feature. To deactivate repeat procedure.

Note: *There will be no onscreen display.*
To confirm if the Control Panel Lock feature is activated, press any button other than the POWER button (the Power button is never disabled).

Panasonic®

BROADCAST AND TELEVISION SYSTEMS

PANASONIC BROADCAST AND TELEVISION SYSTEMS COMPANY
Division of Matsushita Electric Corporation of America
3330 Cahuenga Boulevard West, Los Angeles, CA 90068

FCC NOTE:

This unit has been tested and found to comply with limits for a class B digital device unit, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instruction, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Read these instructions completely before operating TV.
**Contents are subject to change without notice or obligation.**

ACTION Button

Press the **ACTION** button to display the Main Menu and Sub Menus. Press the **ACTION** button repeatedly to exit.

Note: *Models CT-1388YD and CT-2088YD do not display AUDIO, CHANNELS or LOCK icons in the Main Menu. Models CT-1389VYD and CT-2089VYD do not display AUDIO icon. Model CT-2788YD does not display CHANNELS or LOCK icons.*

Main Menu
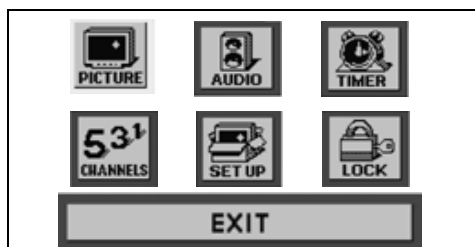
CH / VOL Buttons

Press the **CH** (channel) or **VOL** (volume) buttons to select an icon. Use the CH buttons to highlight the desired features. Use VOL buttons to select and adjust features.

Remote Navigation Buttons

Remote Control

The Remote Control Quick Reference Guide is located in the package provided with the TV.

MAIN MENU FEATURE CHART

MENU	DESCRIPTION
SET UP	**SET UP**
IDIOMA/ LANGUE	❑ Select English or Español (Spanish) menu.
PROG CHAN	❑ MODE - Select Cable or TV. ❑ AUTO PROGRAM - Automatically program channels having a signal into memory. ❑ MANUAL PROGRAM - Manually add or delete channels from memory.
CC MODE	❑ CC MODE - Select C1 or C2 for Closed Captioning display. Select OFF to display closed captioning when MUTE button is pressed.
OTHER ADJ.	❑ AUTO POWER ON - Automatically turns the unit ON when AC power is supplied. ***Note:*** *When this feature is activated (on), the Timer features will be disabled.*
AUDIO (CT-2788YD and CT-2789VYD only)	**AUDIO** (CT-2788YD and CT-2789VYD only)
AUDIO ADJ.	❑ MODE for: • STEREO - Two channel audio reception. • SAP - (Second Audio Program) Tune to the alternate audio channel if available in your area (bilingual or descriptive audio). ***Note:*** *SAP is not available in CT-2788YD.* • MONO - One channel audio. Use when stereo signal is weak. ❑ BASS - Increase or decrease the bass response. ❑ TREBLE - Increase or decrease the treble response. ❑ BALANCE - Emphasize the left/right speaker volume. ❑ NORMAL - Reset BASS, TREBLE, and BALANCE to factory default.

MENU	DESCRIPTION
OTHER ADJ.	☐ AI SOUND - Automatically maintain constant volume between programs and commercials. (AI sound is not available in VIDEO mode.) *Note:* AI Sound feature is not available in CT-2788YD)
SURROUND	☐ MODE - Enhances audio response when listing to stereo.
SPEAKERS	☐ ON - TV SPEAKERS operate normally. ☐ OFF&VARIABLE AUDIO OUT - TV Speakers OFF, sound is adjustable from TV. ☐ OFF&FIXED AUDIO OUT- TV Speakers OFF, sound is adjustable from External Amplifier. *Note:* OFF & VARIABLE and OFF & FIXED AUDIO OUT features available on model CT-2789VYD only.
53¹ CHANNELS	**CHANNELS**
CHANNEL CAPTION	☐ MANUAL CAPTION - Provide labels for up to 30 stations using up to four characters for each station.
TIMER	**TIMER**
CLOCK SET	☐ When entered, TIME will display on screen after pressing POWER button, RECALL button, or changing channels.
SLEEP TIMER	☐ Set timer to turn off television in 30, 60 or 90 minutes. Select NO to turn timer off.
PROGRAM TIMER	☐ Program TV to automatically turn on and off at selected time on a selected channel, daily or only one day.
PICTURE	**PICTURE**
VIDEO ADJ.	☐ COLOR - Adjust desired color intensity. ☐ TINT - Adjust natural flesh tones ☐ BRIGHTNESS - Adjust dark areas for crisp detail. ☐ PICTURE - Adjust white areas of picture. ☐ SHARPNESS - Adjust clarity of outline detail. ☐ NORMAL - Reset all picture adjustments to factory default settings.
LOCK	**LOCK**
LOCK MODE	☐ Program to prevent video games and VCR's from being viewed. *Note:* For information about Motion Picture Status and TV Parental Status, see the V-CHIP Parental Lock manual provided with the TV package.

Languages

In SET UP menu, select ENGLISH or ESPAÑOL.

```
SET UP
IDIOMA/          MODE      ENGLISH
LANGUE
PROG CHAN
CC
OTHER ADJ.
```

Timer

Sleep Timer

In TIMER menu, program to turn TV OFF in 30, 60, or 90 minutes. Select NO to turn off timer.

```
TIMER
CLOCK SET
                 HOW LONG?      30
SLEEP
TIMER
```

Program Timer

In Timer menu, program TV to automatically turn on and off at selected time on a selected channel, daily or one day.

```
TIMER
CLOCK SET        MODE          ONE DAY
                 ON TIME       --:--
SLEEP            OFF TIME      --:--
                 ENTER CHANNEL     3
TIMER
                 SET TIME FIRST
```

Note: TIME must be entered in the TIMER menu to operate PROGRAM TIMER.

Helpful Hints: PROGRAM TIMER Activation

The PROGRAM TIMER is active when the TV is OFF or ON. The TV will switch to the selected channel at the selected time set by the PROGRAM TIMER.

Helpful Hints: Turn Off After 90 Minutes

The TV automatically turns OFF after 90 minutes when turned on by the PROGRAM TIMER. If the OFF time is programmed or if a key is pressed, the automatic OFF after 90 minutes will be cancelled.

Channels

Manual Caption

Program channel captions (station labels) for 30 stations using up to four characters.

```
CHANNELS
          MANUAL CAPTION
ENTER CHANNEL              3
ENTER CAPTION            ----
       ▲ TOMOVE CURSOR ▼
       ◄ TO SELECT CHANNEL ►
```

Note: Delete channel captions by entering spaces in all four character slots.

LOCK

Lock Mode (Lock and Unlock)

(For models CT-1389VYD, CT-2089VYD and CT-2789VYD only.)

Select LOCK MODE to prevent video games and VCR's from being viewed.
Lock Channel 3, Channel 4, and Video Inputs for 12, 24, 48 hours or ALWAYS by entering a four digit secret code, then selecting GAME.

Note: Understand how to unlock LOCK MODE before using it. Use a code that is easy to remember or record it in a safe place.

Unlock LOCK SET by reentering your four digit secret code, then selecting LOCK MODE OFF.

```
LOCK
                 LOCK SET          OFF
MODE
                 BLOCK  PROGRAMS:
HOW LONG?                   U.S.  MOVIES
                 STATUS            OFF
                 ENTER CODE      - - - -
                 FIRST
```

Note: When **LOCK MODE** is ON, and if CH. 3, CH. 4 or Video Inputs is selected, the message **PG** displays in the upper left corner of the TV screen.
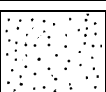
Helpful Hints: LOCK MODE Unlock

If you do not remember your code, the LOCK will unlock in 12, 24, or 48 hours depending on last setup. Be cautious when selecting ALWAYS. If ALWAYS is selected and you forget your secret code, the TV must be serviced by a qualified technician in order to clear the LOCK options that are set.

* For more information about Block Programs, see the V-CHIP Parental Lock manual provided with the TV package.

TROUBLESHOOTING CHART

Before you call for service, determine the symptoms and make a few simple checks shown below.

AUDIO	VIDEO	Solutions
Noisy Sound	Snowy Video	- Input Connectors Seated Properly - Equipment Connected to Input Connections - Antenna Location and/or Connection
Noisy Sound	Interference	- Electrical Appliances, Lights, Cars, and Trucks - Diathermy and Medical Equipment - Video Input Connector Seated Properly
No Sound	Normal Picture	- Increase Volume - Check Mute - Check TV SPEAKERS on/off - Change Channel - Audio Input Connector Seated Properly
No Sound	No Picture	- Set TV or Cable Mode Properly - Check Antenna Cables
No Sound	? No Picture	- Check Power Cord is Plugged into Active Outlet - Adjust Brightness and Audio Controls - Change Channel - Check Cable Connections - Program the Remote Control Again - Check Second Video Source Operation
Normal Sound	No Color	- Adjust Color Settings - Change Channel
Wrong Sound	Normal Picture	- Check Audio is set to Stereo or Mono, not SAP (If Applicable)
No Sound	VIDEO Black Picture	- Monitor/Receiver in Video Mode with no signal
Normal Sound	Normal Picture Intermittent Remote Control Operation	- Replace Remote Control Batteries